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STATISTICAL BULLETIN
Metropolitan Life Insurance Co.

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AN UNTILLED FIELD IN SAFETY WORK

At the meeting of the National Safety Council at Detroit, Mich., October 29th, Dr. L. I. DUBLIN, Statistician of this Company, directed attention to the need for a comprehensive approach to the prevention of the 17,000 deaths and the several million injuries which arise in and about the American home each year. He pointed out that for the past twenty years a systematic and effective movement had been under way for the prevention of accidents and injuries in our workshops and factories. Here results have been definite and gratifying; for the industrial safety engineer has been able to reduce materially the number of serious injuries in industry. The movement for the protection of life and limb on our streets and highways has also gotten off to a good start under the auspices of the National Safety Council and the two conferences on street and highway safety which have been held under the auspices of Secretary HOOVER of the Department of Commerce.

Practically nothing has been done, however, to bring under control the 17,000 deaths occurring each year in the American home. The largest single items in this list are burns, falls and poisonings by gas. More than a third of these fatal accidents in the home occur among children under 15 years of age and a little more than a fourth are found at the age ranges above 65 years. Adult women, as might be expected, bear the brunt of these domestic accidents.

The time is ripe for the organization of effort for the study and prevention of domestic accidents and fatalities. Dr. DUBLIN recommended that the National Safety Council appoint a committee to attack this problem and suggested that there be enlisted the aid of a number of agencies, more particularly the press, the pulpit, women's clubs, school officials, architects and manufacturers of domestic appliances. It is hoped that by reason of the initiative which the

National Safety Council could take, it will be possible to organize major agencies whose everyday work affects the lives of persons in the home. The first step should be to secure the facts on domestic injuries and fatalities. These facts should then be studied and a programme of effort outlined directed at the hazards inherent in domestic equipment and human failure to utilize such equipment safely.

MORTALITY RECORD OF THE FIRST NINE MONTHS OF 1926

The health record of the Industrial populations of the United States and Canada during the first nine months of 1926, while by no means unsatisfactory, has not been quite up to the standard of recent years. The fact is that 1926 had a bad beginning, as the result of the widespread prevalence of influenza and pneumonia during the early months. This situation, itself, appears to have cleared up, since, up to the middle of October, there have been no particular indications of an autumn recrudescence of influenza or influenzal pneumonia. As is invariably the case when we have above-average prevalence of mortality from these diseases, there has been, this year, a rise in the deathrate from organic heart disease and chronic nephritis. Other factors which have operated unfavorably this year have been outbreaks of measles and whooping cough. These bid fair to be reflected in the highest deathrates in a decade. We have also had smaller increases in the mortality from cancer and diabetes.

These increases when combined have not been quite counterbalanced this year by the combined decreases in the rates recorded for diphtheria, diarrheal diseases, puerperal conditions, and accidents.

Although typhoid fever is of relatively small account, numerically, it will continue to be of much public health interest as long as sporadic outbreaks continue. It is, therefore, gratifying to be able to report that 1926 promises to register a new minimum in the mortality from typhoid. The year 1925 broke the long sequence of declines in the deathrate from this disease.

The mortality from diphtheria is showing a rapidly falling tendency. The deathrate among white Industrial policyholders for the first nine months of 1926 (8.7 per 100,000) is the lowest ever recorded for a like period of any year in the industrial populations of the United States and Canada. Improvement in the diphtheria

record has been general throughout both countries, the greatest decline having been registered in Canada. While the situation in the Far West shows improvement over last year, the rate has not decreased as much as in other sections. This probably indicates that diphtheria immunization has not been pushed as vigorously in those states as in the rest of the country. Scarlet fever, also, has registered a very low rate during 1926.

The tuberculosis deathrate shows a slight decline among the white policyholders, but has increased somewhat this year among the colored. The net result is that the cumulative rate for the Industrial policyholders, as a whole, is substantially the same as last year.

Two extremely gratifying items in the health record of 1926, to date, are the very considerable declines among both the white and colored industrial populations in the mortality from diarrheal conditions and from diseases incidental to pregnancy and childbirth. With respect to the former, the season of highest incidence has passed, and with declines of 20.5. per cent. among the white and 20.3. per cent. among the colored, it is now safe to say that when the mortality record for the year becomes available, it will show a lower deathrate for these diseases than obtained either in 1925 or 1924. The deathrate from puerperal diseases shows an improvement of 8.8. per cent. among the whites as compared with the corresponding period of last year and 9.9. per cent. over two years ago. Corresponding declines among the colored are 7.5. and 10.3. per cent.

There were 433 deaths from alcoholism among Metropolitan Industrial policyholders during the first nine months of 1926 with a deathrate of 3.3 per 100,000. This is the highest deathrate for this disease for any similar period since 1917. The rate for the corresponding period of last year was 2.9; the increase since last year was approximately 14 per cent.

Cirrhosis of the liver, which is closely associated with alcoholism, accounted for 863 deaths. These deaths give a rate of 6.6 per 100,000, which is slightly below that for the same months of last year (6.7), and a little higher than for the same period of 1924 (6.3).

Deaths charged to wood and denatured alcoholic poisoning numbered 24 during the nine months' period.

Since January 1, 1922, a period of four years and nine months, alcoholism has caused 2,090 deaths among Metropolitan Industrial

policyholders. Of these, 2,067 occurred among approximately sixteen million persons living in the United States, and only 23 among approximately one million Canadians insured in the Industrial Department of the Company. More than half of the few deaths from alcoholism among Canadians, occurred in the Province of Ontario, which has approximately one-third of the number of persons exposed to risk in the Dominion.

The facts for the *industrial* population are entirely in line with those shown for the *general* population, by the United States Census Bureau, up to the latest year for which data from that source are available. Through the courtesy of the Census Bureau, we now have the deathrates for alcoholism in the several states for the year 1924. Comparison of these general population rates for 1924 with those for 1920 shows that every one of the thirty-five states for which comparative data are obtainable, registered a higher figure in 1924 than in 1920. In certain states, namely, Colorado, Connecticut, Delaware, Illinois, Kentucky, Maryland, Missouri, New Jersey, New York, Rhode Island, and in the District of Columbia the rate in 1924 was more than quadruple that of 1920. Wyoming registered the highest alcoholism deathrate, both in 1924 and 1923, with Rhode Island and Massachusetts standing second and third, respectively. Other states in which the mortality from this disease was far above the average are Delaware, Maryland, New York, Florida, Connecticut, New Jersey and the District of Columbia. The rate for 1924, for the entire death registration area, was more than treble that for 1920, double that for 1919, and considerably above that for 1918.

The record for violent deaths, by and large, shows some improvement over last year. There is not much change in the homicide situation as the rate fell slightly among the whites and rose a little for the colored. The suicide rate has increased, being higher among both white and colored policyholders. Fatal accidents, as a group, show considerable improvement among the whites and a small decline among the colored. Accidental drownings have been less frequent than in 1925 and show a very pronounced drop over the corresponding period of 1924. Automobile fatalities are recording about the same deathrate as last year. With respect to this type of accidents, the very fact that there appears to be a check in the rising tendency of the deathrate is distinctly encouraging.

The table on page 5 presents the deathrates among white and colored policyholders, respectively, for the first nine months of 1926, 1925, and 1924.

Deathrates per 100,000 Persons Exposed. First Nine Months of 1924, 1925 and 1926 Compared by Color for Principal Causes of Death. Industrial Department, Metropolitan Life Insurance Company. Premium-paying Business.

Cause of Death	Deathrates per 100,000 Persons Exposed					
	White			Colored		
	Jan.-Sept., 1926	Jan.-Sept., 1925	Jan.-Sept., 1924	Jan.-Sept., 1926	Jan.-Sept., 1925	Jan.-Sept., 1924
All Causes of Death	871.5	841.9	843.7	1582.8	1511.1	1493.9
Typhoid fever	3.0	3.2	3.2	8.4	11.5	9.2
Measles	13.1	3.7	9.7	10.0	2.4	5.9
Scarlet fever	4.0	4.2	5.4	1.3	1.2	.8
Whooping cough	9.9	7.5	7.5	14.0	14.0	13.4
Diphtheria	8.7	10.8	14.0	5.9	4.4	4.5
Influenza	31.6	20.7	14.2	66.2	50.0	38.6
Meningococcus meningitis	.9	.9	.7	.5	.6	.8
Tuberculosis—all forms	82.0	83.1	90.1	241.0	231.8	241.1
Tuberculosis of respiratory system	71.6	72.6	79.7	210.6	202.0	216.2
Tuberculosis of the meninges, etc	5.0	5.2	5.5	8.1	8.6	7.7
Other forms of tuberculosis	5.4	5.4	4.9	22.2	21.2	17.2
Cancer	72.3	70.3	70.3	69.8	69.6	70.5
Diabetes	16.3	15.4	14.7	16.8	15.7	15.6
Alcoholism	3.2	2.9	2.8	4.2	4.2	3.7
Cerebral hemorrhage; apoplexy	50.3	49.3	55.0	94.9	87.2	95.6
Organic diseases of the heart	124.3	115.9	112.9	213.7	213.5	206.7
Total respiratory diseases	105.5	91.5	94.9	217.6	186.1	193.5
Bronchitis	4.7	4.9	5.0	9.4	8.3	9.4
Bronchopneumonia	43.2	34.3	37.5	75.9	59.1	62.4
Pneumonia-lobar and undefined	50.1	44.8	44.5	120.3	105.4	109.6
Other diseases of respiratory system	7.4	7.5	7.9	12.0	13.3	12.1
Diarrhea and enteritis	28.0	35.2	31.7	31.4	39.4	32.0
Under 2 years	24.1	30.3	26.7	23.4	29.5	22.6
2 years and over	4.0	4.9	5.0	8.0	10.0	9.4
Acute nephritis	4.2	4.6	4.8	16.5	15.7	16.1
Chronic nephritis	64.4	63.0	59.0	133.3	122.4	114.4
Total puerperal state	14.5	15.9	16.1	23.6	25.5	26.3
Puerperal septicemia	5.3	5.8	6.0	10.4	10.9	10.3
Puerperal albuminuria and convulsions	3.3	3.7	4.2	6.0	5.9	6.9
Other diseases of puerperal state	5.9	6.4	6.0	7.1	8.7	9.1
Total external causes	70.1	74.7	71.6	115.3	113.6	111.8
Suicides	7.7	7.2	7.3	5.7	4.2	4.9
Homicides	2.9	3.6	2.9	34.2	32.6	35.7
Accidental and unspecified violence	59.5	63.8	61.4	75.4	76.8	71.2
Accidental drowning	7.0	7.5	8.3	7.8	9.0	9.5
Automobile accidents	15.8	15.8	14.9	15.1	14.5	13.5
All other and ill-defined causes of death	165.3	171.9	167.9	298.2	306.7	297.1

AUTOMOBILE FATALITIES IN THE URBAN INDUSTRIAL POPULATIONS OF AMERICAN STATES AND CANADIAN PROVINCES, 1925

During 1925, there occurred 2,748 deaths from automobile accidents among the seventeen million Industrial policyholders of the Metropolitan Life Insurance Company. These deaths constituted almost two per cent. of the total mortality among this important cross-section of the population.

During this same year, accidents of all kinds, caused the loss of 10,656 lives in this insured group. That is, for every 100 who lost their lives in accidents of any kind, there were 26 victims of motor vehicle casualties. The following comparisons are illustrative of the relative importance of automobile fatalities, as compared with deaths due to other forms of accident. There were 2½ deaths in automobile accidents to every one drowning and more than 2½ to every fatality caused by accidental burns. There were more than 2 automobile fatalities to every death from accidental falls, which ranked next in importance, numerically, among all the accidental causes. The ratio of deaths in automobile accidents to those on steam railroads was more than 4 to 1; that to inhalation of poisonous gases of all kinds was 5½ to 1; that to accidental gunshot wounds almost 10 to 1, and to machinery accidents of all kinds nearly 13 to 1. The automobile death toll among urban wage-earners and their families exceeded the combined total from burns, drownings and street railway accidents.

In view of the importance of automobile fatalities, more than usual interest attaches to their geographical distribution. It should be remembered, however, that the Metropolitan Industrial policyholders live almost altogether in the cities. Here they comprise 30 per cent. of the entire wage-earning population. The deathrates for this large body of people, therefore, important and significant as they are, must not be interpreted as showing the relative position of the total populations of these states and provinces with respect to automobile fatalities. Some of the commonwealths with large rural populations, might assume different ranks if the deathrates from this cause were based on their entire populations.

The highest deathrate from automobile fatalities in any geographic division of the two countries, was recorded for the Middle Atlantic States (19.2 per 100,000). In this region New Jersey with a rate of 24.5 ranked third among the states. The second highest regional mortality was that for the Pacific Coast, where the figure was 18.7.

Among these three states, California with a rate of 20.5 per 100,000, ranked seventh. The rate for the New England States was 17.7, and New Hampshire, with 24.0 and Connecticut, with 19.5, stood fourth and ninth respectively. The fourth highest regional rate (17.4 per 100,000) was experienced in the East North Central States, where Ohio, with 20.7 and Michigan, with 19.9, ranked sixth and eighth, respectively. The West North Central States (16.5) stood fifth highest among the several regions and Kansas, with a rate of 22.1 ranked fifth among the states.

The South Atlantic States, which stood sixth, registered a death-rate of 16.3 per 100,000. In this group, however, the enormous rate of 43.7 per 100,000 was recorded in the urban industrial population of the cities of Florida. This figure is far and away the highest recorded for any state or province. The East South Central region stood seventh with a rate of 15.8. The Mountain States stood eighth, with a rate of 12.8 per 100,000, but Colorado stood tenth among the states with a rate of 19.4.

The lowest rate for automobile fatalities was recorded in the West South Central States, namely, 12.3 per 100,000.

In Canada, the automobile fatality rate among the urban industrial population was only 7.4 per 100,000 as compared with 17.8 in the United States. For the Eastern provinces, the figure was 7.7 and for the Western provinces, 5.0.

Conspicuously low automobile fatality rates were recorded in certain states and provinces. In Manitoba and Saskatchewan cities, not a single death was registered from this cause in 1925, although more than 56,000 persons were exposed to risk. In New Brunswick cities, the extremely low rate of 2.9 was recorded among 35,000 Metropolitan policyholders. Among American states, the lowest deathrate (6.4 per 100,000) was that recorded in the cities of Oregon. Other relatively low figures were 8.3 for Arkansas, 9.3 for Utah, 9.4 for Nebraska and 10.0 for South Carolina.

All of the rates quoted above relate to white persons only. In the industrial population, the automobile fatality rate for whites exceeds that for colored persons, but the margin is surprisingly small, the figures being 17.8 and 15.8, respectively. The difference is by no means as great as that shown in the general population, where in practically every state, the automobile deathrate among whites exceeds that among the colored—sometimes by more than 3 to 1. The explanation may lie in the fact, that in the industrial population a great many more persons, relatively, are killed by being *struck* by

motor vehicles, as compared with those who are injured while driving or riding. In 14 states namely, New York, Ohio, Indiana, Illinois, Michigan, Wisconsin, Nebraska, Maryland, Virginia, West Virginia, South Carolina, Tennessee, Washington and California, the automobile deathrate among the colored urban industrial population actually exceeded that for the whites—and in many instances by large margins. The inference is that in the congested districts of our cities, colored children, while at play on the streets, are killed in large numbers by being struck or run over by motor vehicles.

EXPECTATION OF LIFE IN 1925 PRACTICALLY UNCHANGED SINCE 1924

Last year we published, in our September issue, a table showing the expectation of life among our American and Canadian Industrial policyholders during the calendar year 1924. Corresponding data are now available for the year 1925. In the subjoined table are shown, for comparison, the new figure for the expectation of life, *at birth*, in 1925, together with those for the four years immediately preceding and for 1911-1912. The series of figures for the expectation of life at each age in 1924 and 1925 are so closely alike that to all intents and purposes it may be said the situation has remained stationary. What slight drop there is, is not significant.

We have been fortunate for many years past, in being able to record a steady and almost uninterrupted increase in the mean length of life. In the thirteen-year interval between 1911-1912 and 1924-1925, there has been a gain of nine years in the expectation of life at birth. It can hardly be expected that this improvement will continue indefinitely, though we may certainly hope that the optimum is still well ahead of us. A slowing down of the rate of advance must be expected as we approach the optimum possible for the human race, as constituted today. It must be borne in mind that an increase in the mean length of life can result from two kinds of causes, first environmental causes, improvements in hygienic conditions in the broadest sense, including an increase in our knowledge of diseases and their treatment; and second, causes inherent in the race including the improvement of the human stock, by the weeding out of those lacking in resisting power and by the multiplication of those having superior qualities. Under existing conditions improvement can be achieved much more readily as regards the first of these two sets of causes, that is, bettering of hygienic conditions. It is difficult to make even a roughly approximate estimate as to the

operation of the second group of causes, but this may be said with a considerable degree of certainty, that improvement in the human stock, under present social conditions, can at best be only a very slow process.

Expectation of Life at Birth. Metropolitan Life Insurance Company. Industrial Department, 1911 to 1925.

Year	Expectation in Years
1925	55.51
1924	55.62
1923	54.55
1922	55.04
1921	55.08
1919-1920	51.14
1911-1912	46.63
Gain, 1925 since 1911-1912	8.88

HEALTH RECORD FOR SEPTEMBER, 1926

Health conditions in September among the industrial populations of the United States and Canada showed a decided improvement as compared with the same month of 1925. The deathrate this year was 8.1 per 1,000, which marks an improvement of approximately six per cent. over the figure for September, 1925 (8.6). The September rate was slightly higher, as compared with August of this year, but the figures for both months are lower than the average for recent years.

The advent of the fall season has been accompanied by the usual rise in the typhoid fever deathrate which almost doubled as compared with August. The September figure, nevertheless, is lower than for the same month last year and the mortality record for typhoid fever, thus far in 1926, shows that the downward trend of the deathrate, which has been prevailing for a long series of years, is still in evidence.

Whooping cough had a higher deathrate in September than the other three principal disease of childhood, diphtheria, scarlet fever, and measles. It was the only one of these four diseases to show an above-average September deathrate.

The influenza deathrate in September was only 4.6 per 100,000, which is slightly below the August figure and considerably below the rate for September, 1925. The mortality from pneumonia was virtually identical with that recorded for August, and considerably

lower than the figure for September of last year. There were absolutely no signs, in September, pointing to unusual prevalence of influenza.

Two other items of primary public health interest, namely, diarrheal diseases, and conditions incidental to pregnancy and childbirth, showed very gratifying declines as compared with September a year ago.

In no single instance, did any disease show a substantial increase as compared with last year.

During September there were 132 suicides, corresponding to a deathrate of nine per 100,000. This, with a single exception (May, 1923), is the highest suicide deathrate recorded for any month among Metropolitan Industrial policyholders. Automobile fatalities numbered 301, with a deathrate of 20.5 per 100,000. This marks a high point for the months so far in 1926, and is, in fact, the highest rate recorded for any month since October, 1925.

The general deathrate for the large cities of the United States, in September, was 10.9 per 1,000 population, which is the same as for September a year ago. This is slightly above the August deathrate, 10.5. Reports from all over the country show increases in September, as compared with August, in the prevalence of diphtheria, malaria, poliomyelitis, scarlet fever and typhoid fever. Fewer cases were reported of measles, smallpox and whooping cough. Comparison with September, 1925, shows more cases, this year, of influenza, measles, scarlet fever, smallpox and whooping cough, with lower incidence of diphtheria, malaria, poliomyelitis and typhoid fever.

The measles outbreak, which has been responsible for a greatly increased deathrate this year from that disease, appears to have run its course. In only one state, California, was there increased prevalence of this disease in September, as compared with August. Poliomyelitis is becoming prominent in New York State (exclusive of New York City), where 153 cases were reported during the first three weeks of September, as compared with 91 during the corresponding weeks of August. Slight increases were also reported from a number of other states. Typhoid fever is showing the usual seasonal increase in most of the states, although declines were reported from a few.

The following table shows the mortality among the Industrial policyholders for September, 1926; August, 1926; September, 1925; and the year, 1925.

METROPOLITAN LIFE INSURANCE COMPANY

Deathrates* per 100,000 for Principal Causes, Premium-paying Business in Industrial Department (Annual Basis)

MONTHS OF SEPTEMBER, 1926; AUGUST, 1926, AND OF SEPTEMBER, 1925

CAUSES OF DEATH	RATE PER 100,000 LIVES EXPOSED*			
	Sept., 1926	Aug., 1926	Sept., 1925	Year 1925
TOTAL—ALL CAUSES	814.2	785.8	859.9	907.5
Typhoid-fever	8.4	4.8	8.8	4.6
Measles	1.9	3.1	.9	3.3
Scarlet fever	1.1	2.0	.9	3.5
Whooping cough	9.0	7.9	9.3	7.7
Diphtheria	6.5	5.7	7.6	10.6
Influenza	4.6	5.0	5.5	22.0
Tuberculosis (All forms)	89.6	89.0	88.8	98.1
Tuberculosis of resp'y system	79.1	75.3	76.9	85.9
Cancer	72.8	72.3	70.1	70.5
Diabetes mellitus	15.1	13.1	13.4	15.2
Cerebral hemorrhage	46.1	45.2	47.1	53.6
Organic diseases of heart	105.1	99.6	102.6	126.6
Pneumonia (All forms)	36.3	36.0	40.0	86.5
Other respiratory diseases	9.0	10.2	10.2	13.2
Diarrhea and enteritis	63.6	49.7	89.4	36.7
Bright's disease (Chronic nephritis)	60.4	58.4	61.8	69.8
Puerperal state	11.5	13.2	14.6	16.5
Suicides	9.0	6.7	7.6	6.9
Homicides	6.5	6.2	8.2	7.2
Other external causes (excluding suicides and homicides)	68.5	70.6	70.8	64.3
Traumatism by automobiles	20.5	15.6	20.4	16.6
All other causes	189.1	187.3	202.2	190.7

*All figures include infants insured under one year of age.

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STATISTICAL BULLETIN,

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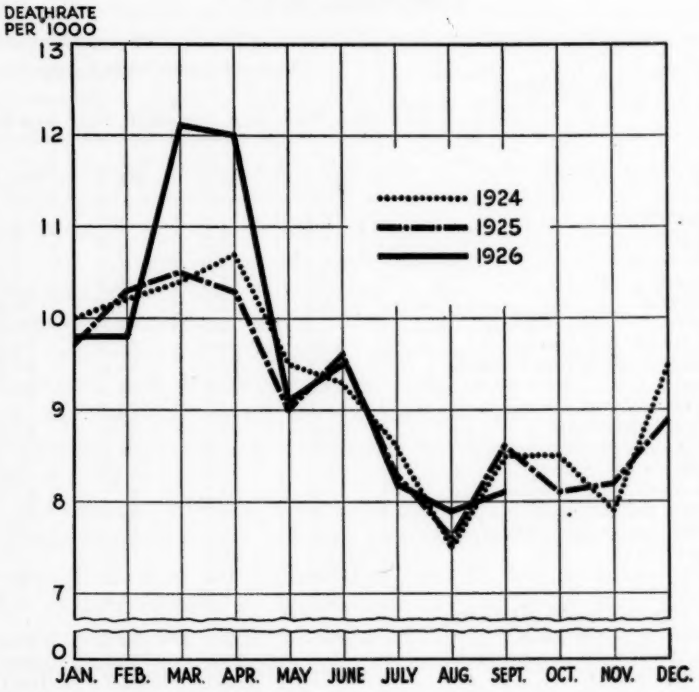
DEATHRATE PER 1000
IN SPECIFIED MONTHS OF
1924, 1925, 1926

METROPOLITAN LIFE INSURANCE COMPANY
INDUSTRIAL DEPARTMENT
(ANNUAL BASIS)



	1924	1925	1926		1924	1925	1926
JAN.	10.0	9.7	9.8	JULY	8.6	8.3	8.2
FEB.	10.2	10.3	9.8	AUG.	7.5	7.6	7.9
MAR.	10.4	10.5	12.1	SEPT.	8.5	8.6	8.1
APR.	10.7	10.3	12.0	OCT.	8.5	8.1	
MAY	9.5	9.0	9.1	NOV.	7.9	8.2	
JUNE	9.3	9.6	9.5	DEC.	9.5	8.9	

NOTE: Figures include mortality of infants under one year of age.

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